

REMARKS

This communication responds to the Office Action mailed on August 2, 2007. Claim 9 is amended, no claims are canceled, and no claims are added. As a result, claims 1-29 are now pending in this Application.

Objections to the Claims

An objection was raised to claim 9 due to informalities. Objections to claims 10-11 were also raised because they depend from the rejected base claim.

Claim 9 has been amended to correct a typographical error, and not for reasons related to patentability. The Applicant appreciates the Examiner's thorough review in this regard. It is believed that the amendment fully addresses the concern expressed by the Office, and therefore, reconsideration and withdrawal of the objections is respectfully requested.

§102 Rejection of the Claims

Claims 1-27 were rejected under 35 USC § 102(b) as being anticipated by Kumar (U.S. 2001/0024475 A1; hereinafter "Kumar"). The Applicant does not admit that Kumar is prior art and reserves the right to swear behind this reference at a later date. In addition, because the Office has not properly established a *prima facie* case of anticipation, the Applicant respectfully traverses this rejection of the claims.

Anticipation under 35 USC § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration. *See Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). "The *identical invention* must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131 (emphasis added).

Independent claim 9 recites the following three elements, among others:

1. a **first digital mixer** to receive a digital baseband signal and to provide a first elevated frequency digital baseband signal.
2. a **phase shifting module** to receive the digital baseband signal and to provide a phase-shifted version of the digital baseband signal.
3. a **second digital mixer** to receive the phase-shifted version of the digital baseband signal and to provide a second elevated frequency digital baseband signal

The Office asserts that Kumar teaches the first and second digital mixers as elements 219 and 205 of FIG. 15, respectively. Similarly, the Office asserts that the phase shifting module is taught as element 205 in FIG. 15 of Kumar. If this is the case, then the “digital baseband signal” received by the phase shifting module is element 203. However, this is not the same signal received by the first digital mixer 219. Rather, the signal received by the first digital mixer 219 is signal element 214, which is a delayed version of the baseband signal 203, and not the baseband signal itself. Thus, Kumar does not teach “a first digital mixer to receive a digital baseband signal and to provide a first elevated frequency digital baseband signal.” as claimed by the Applicant.

Similar reasoning applies to independent claims 1 and 9. Kumar does not teach a “a digital processor to shift a digital baseband signal upward along a frequency spectrum by a selected amount to provide a first elevated frequency digital baseband signal and a second elevated frequency digital baseband signal derived from a phase-shifted version of the digital baseband signal ...” as claimed by the Applicant. This is because, as noted above, the signal 214 shifted by the first mixer 219 in Kumar is not the same signal 203 that is phase-shifted prior to reception by the second mixer 209.

Finally, with respect to independent claims 18 and 26, Kumar does not teach a “shifting a digital baseband signal upward along a frequency spectrum by a selected amount to provide a first elevated frequency digital baseband signal and a second elevated frequency digital baseband signal derived from a phase-shifted version of the digital baseband signal ...” as claimed by the

Applicant. This is because the signal 214 that is mixed to provide the first signal 223 is not the same signal (203) that is phase-shifted to provide the second signal 207.

Since Kumar does not teach the identical invention claimed by the Applicant, claims 1, 9, 12, 18, and 26 (and all claims depending from them) should be in condition for allowance. Reconsideration and withdrawal of the rejections under § 102 are therefore respectfully requested.

§103 Rejection of the Claims

Claims 28-29 were rejected under 35 USC § 103(a) as being unpatentable over Kumar in view of Dent (U.S. 5,351,016; hereinafter “Dent”). The Applicant does not admit that Kumar or Dent are prior art, and reserves the right to swear behind each of these references in the future. In addition, since a *prima facie* case of obviousness has not been established, the Applicant respectfully traverses these rejections.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a *prima facie* case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant teaching of the references. *Id.* The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

No proper *prima facie* case of obviousness has been established because no combination of Kumar or Dent has been suggested that results in “shifting a digital baseband signal upward along a frequency spectrum by a selected amount to provide a first elevated frequency digital baseband signal and a second elevated frequency digital baseband signal derived from a phase-

shifted version of the digital baseband signal . . .” (independent claim 26), as is claimed by the Applicant. Claims 28-29 are nonobvious because any claim depending from a nonobvious independent claim is also nonobvious under 35 USC § 103. *See* M.P.E.P. § 2143.03. Therefore, the rejections of claims 28-29 under 35 U.S.C. § 103(a) is improper; reconsideration and withdrawal are respectfully requested.

RESERVATION OF RIGHTS

In the interest of clarity and brevity, the Applicant may not have addressed every assertion made in the Office Action. the Applicant’s silence regarding any such assertion does not constitute any admission or acquiescence. The Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. The Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner’s personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, the Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. The Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicant's attorney at (210) 308-5677 to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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